

Pacific Institute * West Oakland Healthy Homes Initiative * West Oakland Environmental Indicators Project * Sonoma County Asthma Coalition * American Lung Association of San Francisco and San Mateo Counties * Communities for a Better Environment * Environmental Science Institute * Our Children's Earth Foundation * Regional Asthma Management & Prevention Initiative

August 24, 2004

Dorothy Shimer
Research Division 5th Floor,
California Air Resources Board
P.O. Box 2815
Sacramento, California, 95812

RE: AB 1173 Draft Report Comments

Dear Ms. Shimer:

This letter provides comments to the California Air Resources Board on its Draft Report to the Legislature on Indoor Air Pollution. The following organizations are submitting these comments: the Pacific Institute, the West Oakland Healthy Homes Initiative, the West Oakland Environmental Indicators Project, the Sonoma County Asthma Coalition, the American Lung Association of San Francisco and San Mateo Counties, Communities for a Better Environment, the Environmental Science Institute, Our Children's Earth Foundation, and the Regional Asthma Management & Prevention Initiative.

We are a group of organizations that has been working in environmental justice communities in various ways to assess and reduce the impact of poor indoor and outdoor air quality in overburdened California communities.

We strongly support the need to improve indoor air quality in California. Indoor air pollution has to date not received the scrutiny and attention it deserves. Today most Californians spend the majority of their day breathing air in indoor environments. Children and seniors are especially at risk because they are more sensitive to the wide range of pollutants from indoor and outdoor sources that are concentrated in indoor environments. We commend the California Legislature and the California Air Resources Board (ARB) for taking the initiative to better understand the causes, risks, and remedies associated with indoor air pollution.

We also support the urgent need to mitigate indoor pollution in schools. We commend ARB for prioritizing air quality in both existing and new classrooms. When children attend schools that are poorly maintained and have problems such as poor ventilation or water leakage leading to mold growth, children's health is compromised. This is especially a problem in low-income communities that already experience pollution from multiple sources. Poor indoor air quality leads to increased asthma attacks and other respiratory problems

However, we are concerned that the report does not fully integrate in its analysis the effects of outdoor pollution on indoor environments. We have found through our work that the impacts of

outdoor pollution on indoor air can be significant and must be prioritized for mitigation efforts. We are especially concerned that diesel particulate matter (PM) is not highlighted as an indoor air pollutant. In addition to comments regarding issues not addressed in the report, we would also like to provide comments on the contents of the report and suggestions on the next steps. Our comments are as follows:

Diesel PM is a significant indoor air pollutant. Several of our organizations participated in an indoor air monitoring program in West Oakland in 2003. We measured the concentration of black carbon, a surrogate for diesel PM, inside homes in West Oakland and other parts of Oakland.¹ We found that there was over five times more black carbon in the air West Oakland residents were breathing inside their homes than residents in other parts of Oakland. Diesel PM is a toxic air contaminant that has been linked to cancer, aggravated respiratory and pulmonary conditions, and heart disease. As documented in your report, diesel PM is by far the greatest contributor to cancer risk from outdoor air pollution. Diesel PM does not only trigger and aggravate asthma attacks, recent studies have found that it may cause asthma in otherwise healthy people.²

Through our study, we know that diesel PM is a significant indoor air pollutant. We also know that it **disproportionately impacts** some communities in California more than others. Diesel PM should therefore be identified in the report as an indoor toxic air contaminant, carcinogen, and asthma aggravator. In addressing the environmental justice policies of the Air Resources Board, serious efforts must be made to mitigate the impact of diesel pollution inside the homes of residents living in areas with excessive diesel pollution.

Current outdoor diesel PM reduction strategies do not directly target the concentrations inside homes. ARB is implementing a Diesel Risk Reduction plan that aims at significantly reducing the amount of diesel PM emitted by diesel vehicles and equipment. These emission reductions will occur progressively over a number of years. While these phased-in outdoor emissions reductions take full effect, the indoor air concentrations of diesel PM in overburdened communities will remain high.

Furthermore, the Diesel Risk Reduction plan does not include any strategies to reduce exposure to diesel PM inside homes. This is a serious gap in the policy developed to reduce health risks related to diesel pollution exposure. The indoor air quality report is a great opportunity to mend this gap with the inclusion of mitigation strategies to specifically address diesel PM inside homes. Currently, the mitigation strategies focus on indoor pollutants of indoor origin even though several sections of the report acknowledge that “indoor and outdoor pollution operate in tandem.”

A thorough approach to indoor air pollution must address both indoor and outdoor sources in order to effectively reduce exposure to harmful chemicals and biological contaminants. It is

¹ Pacific Institute. November 2003. *Clearing the Air: Reducing Diesel Pollution in West Oakland*. http://www.pacinst.org/reports/diesel/clearing_the_air_final.pdf. Diesel Inventory and other supporting materials: <http://www.pacinst.org/reports/diesel/supporting.htm>

² Pandya R.J., Solomon, G., Kinner, A. and Balmes, J. February 2002. Diesel Exhaust and Asthma: Hypotheses and Molecular Mechanisms of Action. *Environmental Health Perspectives*. Vol. 110, Supp. 1, pp 103-112.

especially important that solutions proposed to reduce exposure from indoor sources are compatible with solutions developed to reduce indoor exposure from outdoor pollutants. Diesel PM should be added as a priority for mitigation and options to reduce indoor exposure to this toxic pollutant should be included in the report.

None of the recommended mitigations specifically target low-income housing. Although the report discusses the disproportionate impact of bad indoor air quality on low-income families, none of the recommended solutions directly address this issue. We recognize that improving building materials will help reduce toxic emissions in new housing developments. However, many of the indoor air quality problems experienced in low-income housing are due to their location near freeways and other major truck traffic thoroughfares. Addressing indoor air quality in low-income housing will require ensuring lead agencies consider outdoor air impacts when choosing locations for housing and are required to provide mitigation technologies such as HEPA filters to all residents.

As ARB continues in its efforts to develop structures to regulate indoor air quality, we would like to emphasize **the importance of enforcement activities and accountability.** Because the potential for benefits from regulating indoor air quality is so great, it is crucial that the future regulations be implemented in a manner that guarantees their success. Enforcement activities may include making developers accountable for indoor air quality in the long-term in the same manner vehicle manufacturers are responsible for their vehicles' emissions over 100,000 miles or 10 years. Accountability also means that the government will develop effective public education campaigns and above all commit adequate resources to enforcement efforts.

In the end, the effectiveness of an indoor air quality policy should not be measured by levels of attainment of a pre-determined standard but in the actual reduction in diseases and ailments related to poor indoor air in California. We applaud ARB and the California Legislature for considering the important and often overlooked issue of indoor air quality and encourage ARB as it moves forward to revise and finalize this report.

Sincerely,

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